OIPE IAP20
MAY 29 2007
PATENT & TRADEMARK OFFICE

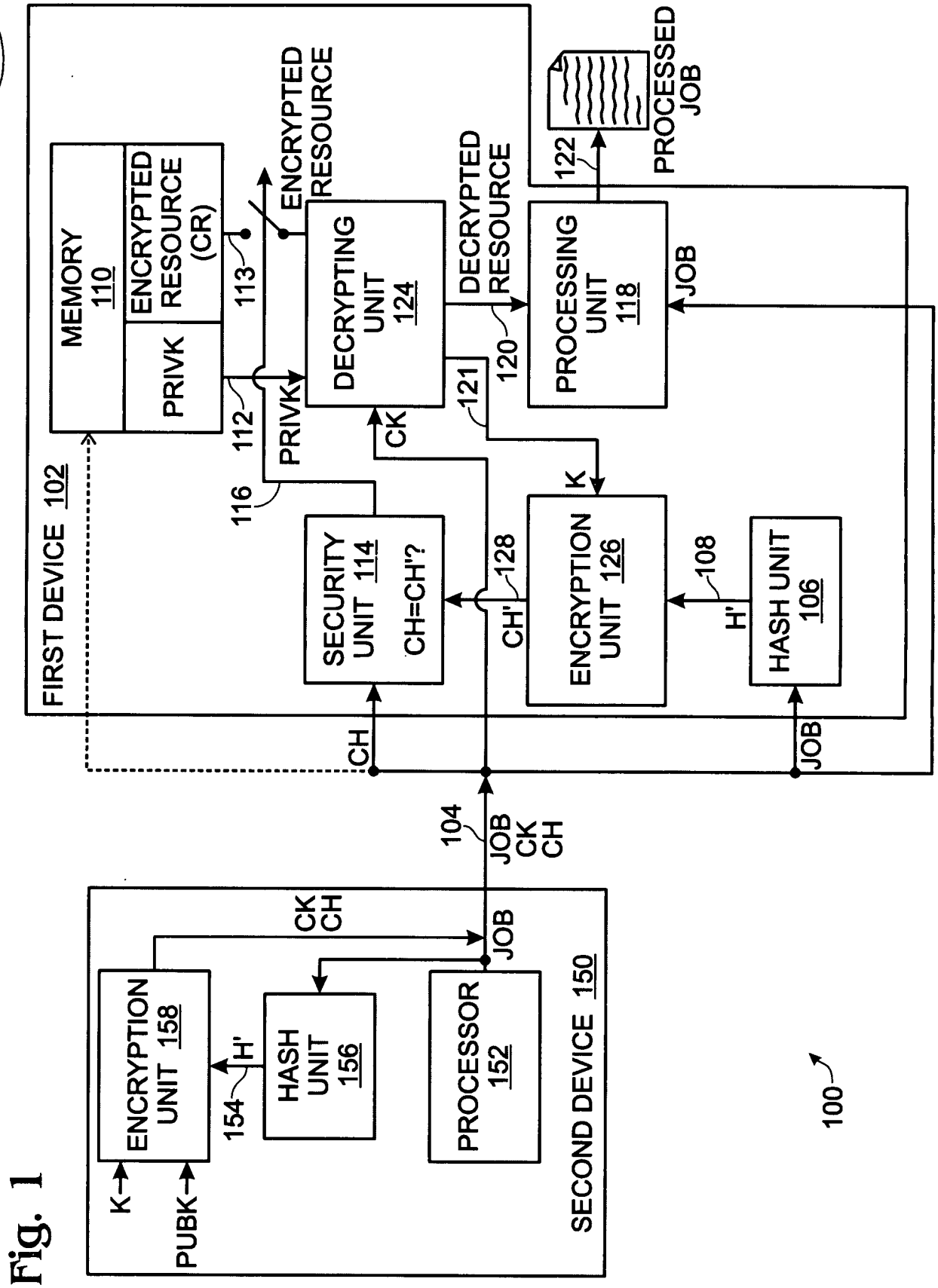


Fig. 1

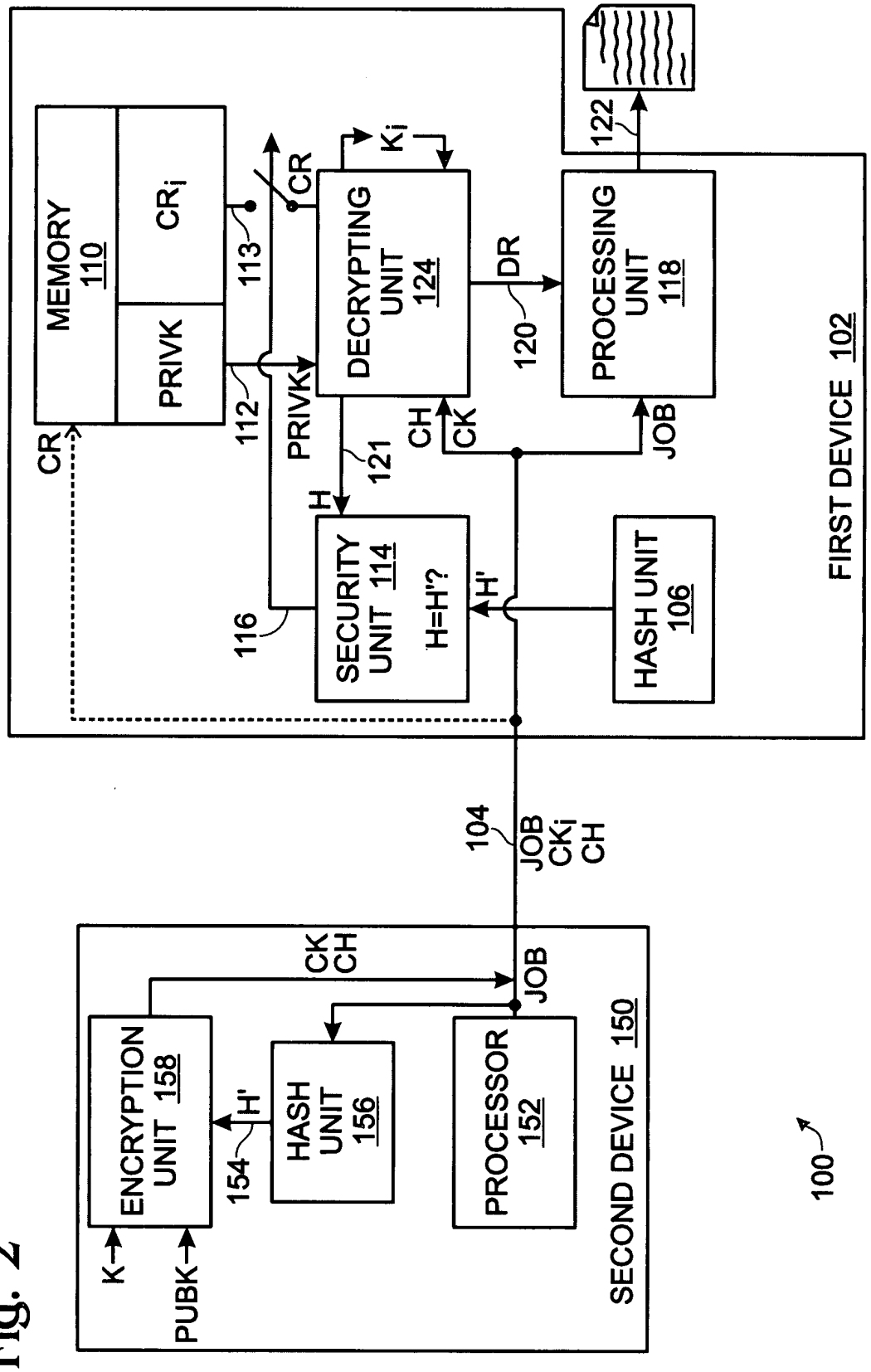

MEMORY 110
CRi
PRIVK
CR
112
113
PRIVK
CR
Ki
DECRYPTING UNIT 124
DR
120
PROCESSING UNIT 118
122
FIRST DEVICE 102
CH
CK
JOB
121
H
SECURITY UNIT 114
H=H'?
H'
HASH UNIT 106
116
104
JOB
CKi
CH
CK
CH
JOB
ENCRYPTION UNIT 158
H'
154
HASH UNIT 156
PROCESSOR 152
K
PUBK
SECOND DEVICE 150
100

Fig. 2

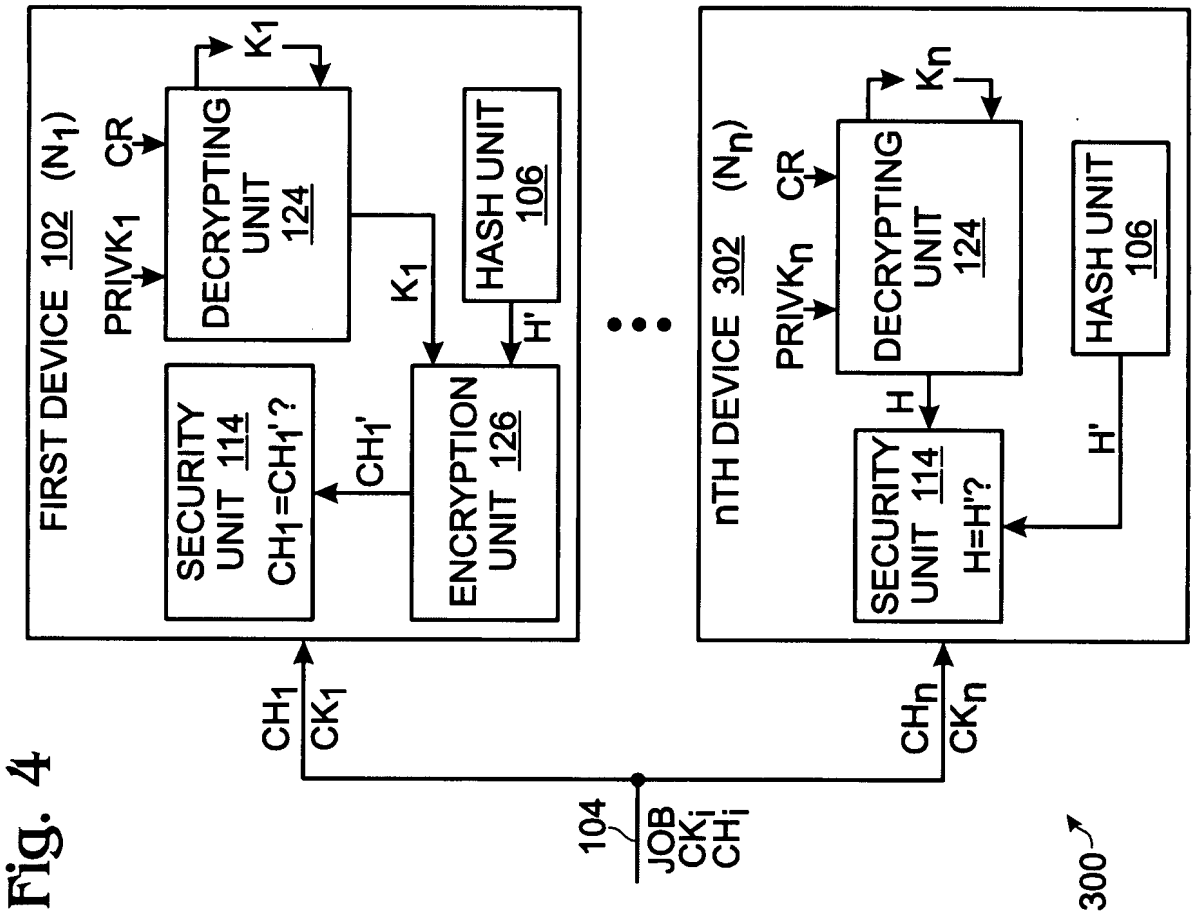

FIRST DEVICE 102 (N1)
PRIVK1
CR
DECRYPTING UNIT 124
K1
HASH UNIT 106
H'
K1
SECURITY UNIT 114 CH1=CH1'?
CH1'
ENCRYPTION UNIT 126
nTH DEVICE 302 (Nn)
PRIVKn
CR
DECRYPTING UNIT 124
Kn
HASH UNIT 106
H
H'
SECURITY UNIT 114 H=H'?
CH1
CK1
CHn
CKn
104
JOB
CKi
CHi
300

Fig. 4

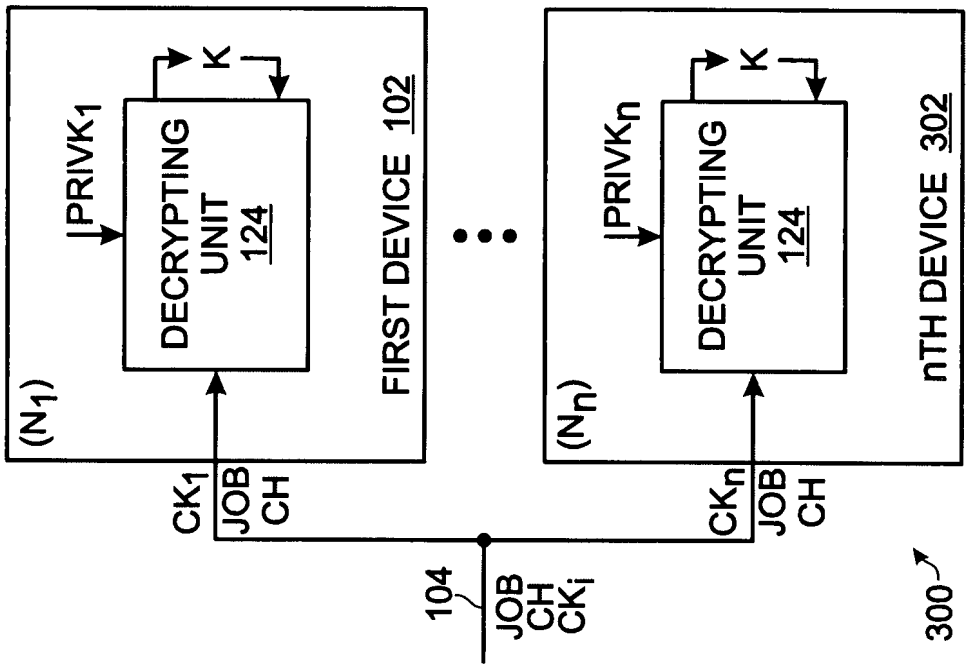
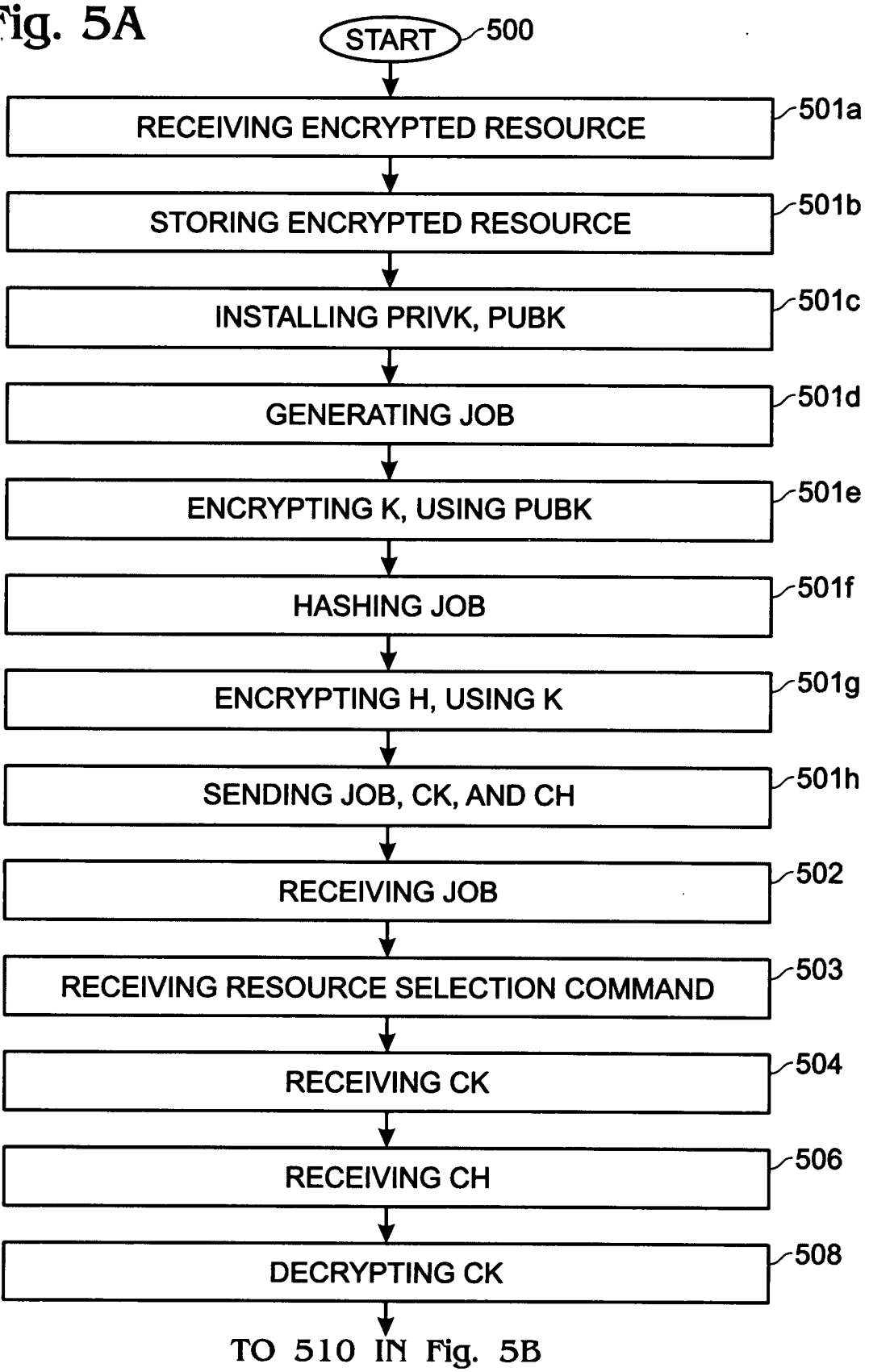

(N1)
PRIVK1
K
DECRYPTING UNIT 124
FIRST DEVICE 102
(Nn)
PRIVKn
K
DECRYPTING UNIT 124
nTH DEVICE 302
CK1
JOB
CH
CKn
JOB
CH
104
JOB
CH
CKi
300

Fig. 3

Fig. 5A



TO 510 IN Fig. 5B

Fig. 5B

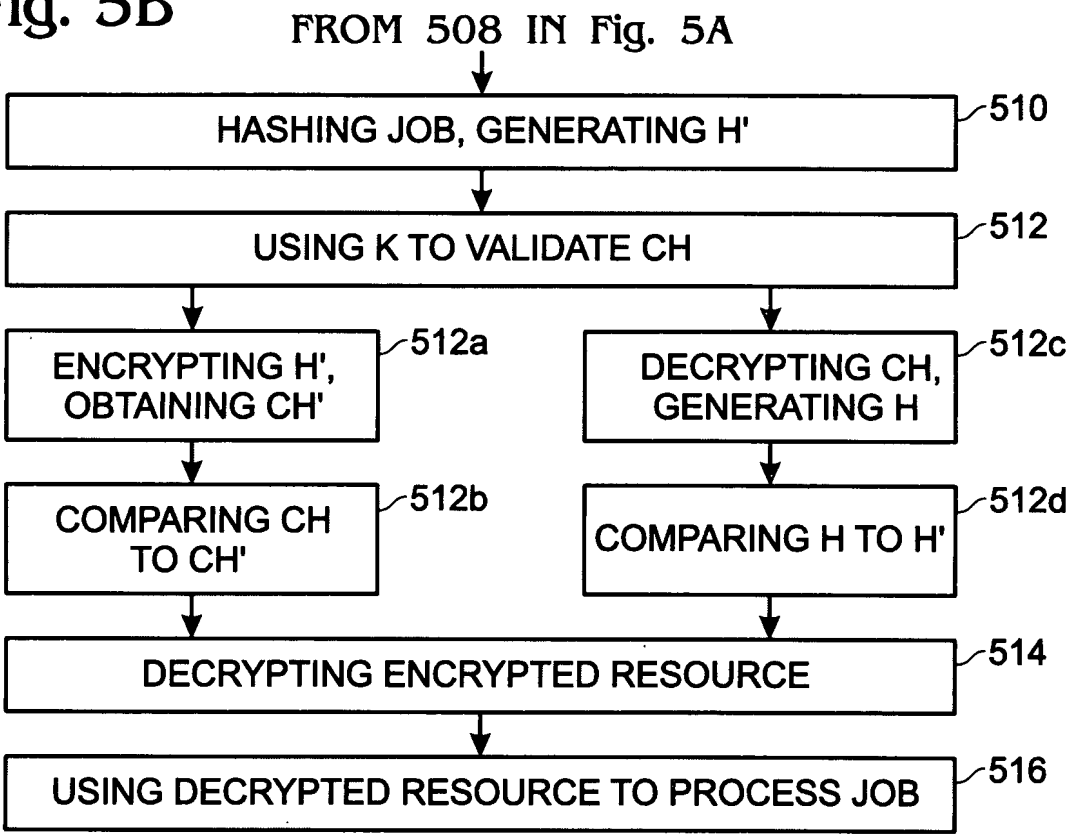
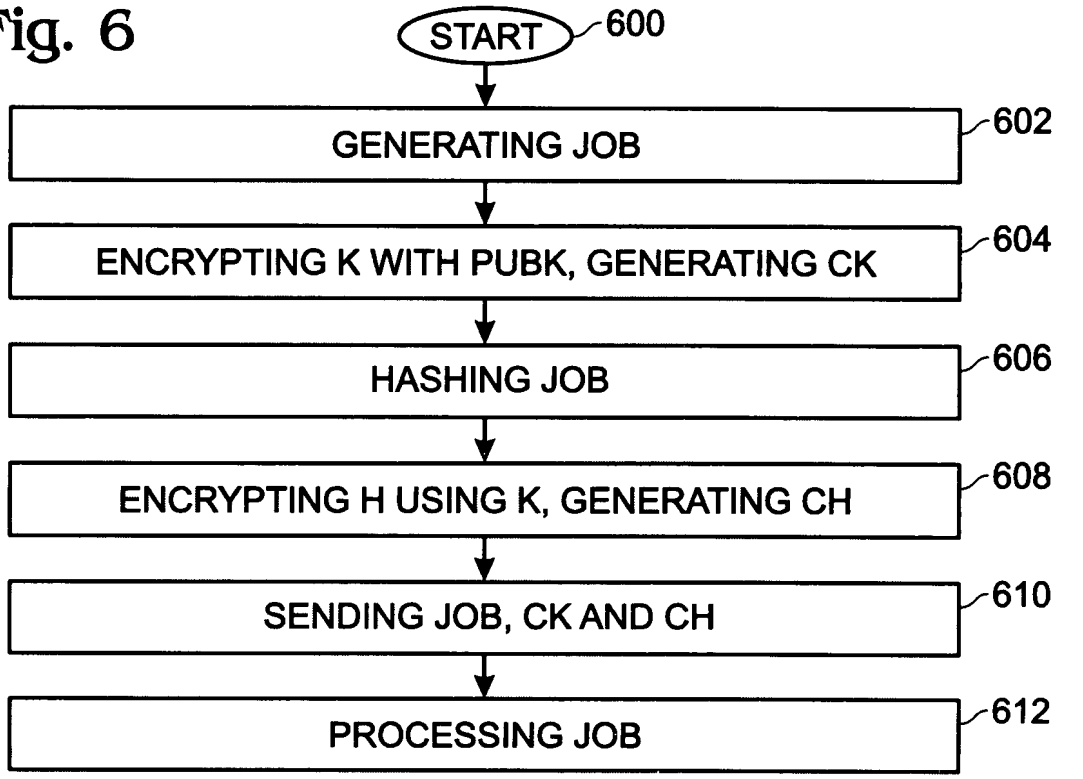

FROM 508 IN Fig. 5A
HASHING JOB, GENERATING H'
510
USING K TO VALIDATE CH
512
ENCRYPTING H', OBTAINING CH'
512a
DECRYPTING CH, GENERATING H
512c
COMPARING CH TO CH'
512b
COMPARING H TO H'
512d
DECRYPTING ENCRYPTED RESOURCE
514
USING DECRYPTED RESOURCE TO PROCESS JOB
516

Fig. 6


START
600
GENERATING JOB
602
ENCRYPTING K WITH PUBK, GENERATING CK
604
HASHING JOB
606
ENCRYPTING H USING K, GENERATING CH
608
SENDING JOB, CK AND CH
610
PROCESSING JOB
612